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Chapter 7 – Tree Selection

Maryland DNR Forest Service – Urban & Community Forestry
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Site Considerations

The most important part of tree selection is matching the tree with the site.

If site is underneath overhead utility lines, plant a small scale tree with decurrent branching pattern.

Tree Selection

Plant the right tree ...

In the right place ...

For the right reason.

Tree Selection

- Site considerations - soil, light, space, moisture, pH
- Tree considerations - requirements for light, water, soil, space, etc
- Planting purpose - aesthetics, engineering, architectural, screen, shade, beauty

Select a tree to fit all 3 factors – may have to compromise

Tree Selection

- Other considerations –
 - Functional uses of the tree;
 - The tree’s ability to adapt to the site;
 - The amount of care the tree will need after planting.

Site Considerations

- Adaptability – tree’s genetic ability to adjust to different conditions
- Acclimation – process by which a tree adapts to its environment

Site Characteristics

- **Climate** – hardiness zone, moisture availability, light, winds;
- **Soil** - soil test, texture, pH, nutrients, compaction
- **Space** - growing space – above and below, nearby signs, buildings, and utilities overhead and underground;
- **Other plantings** – turf, other shrubs and trees nearby;
- **After planting maintenance needs** – irrigation, watering

Site Characteristics

If the planting site is beneath utility lines, you should not plant a tall-growing tree in that location.

Tree Characteristics

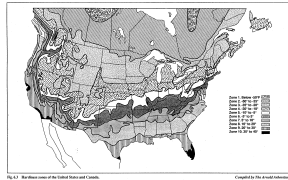
- **Size**- size, height and width at maturity;
- **Growth rate** - fast or slow growing;
- **Fruit, litter** - fruit problems, fall color, flowers, bark, wildlife food, litter, thorns;
- **Water needs** – enough water available for that species;
- **Light needs** – is tree shade tolerant or intolerant;
- **Pest problems** - insect and disease problems in the area;
- **Hardiness** - able to survive low or coldest temps in the area.

Tree Characteristics

Select the right form for the available space.

Hardiness zones

Plant's ability to withstand low temperatures or coldest temps in a particular area.



Maryland is in zone 6 or 7.

Tree may not do well outside its range.

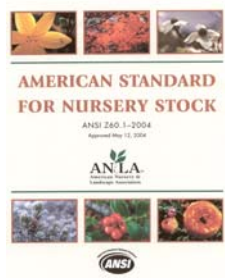
Plant species native to an area are usually hardy in that area.

Nursery Stock Selection

- All plant material should conform to American Standards for Nursery Stock ANSI Z60.1 – 2004.

- Available at anla.org:

<http://www.anla.org/applications/Documents/Docs/ANLAS tandard2004.pdf>



Nursery Stock Selection

ANSI Z60.1-2004 required general specifications:

For **bare root & field grown** stock, specifications shall include plant size, by height or caliper, as appropriate to the plant type.

Nursery Stock Selection

ANSI Z60.1-2004 required general specifications:

For **container** grown stock and **box-grown** stock, specifications shall include plant size, by height or caliper, as appropriate to the plant type, and container class or box size.

Nursery Stock Selection

Types of trees include:

Type 1 – shade trees;

Type 2 – shade trees (slower growing than type 1);

Type 3 – small upright trees;

Type 4 – small spreading trees;

ANSI Z60.1-2004 gives definitions and standards for all types of trees.

Nursery Stock Selection

Types of coniferous evergreens include:

- Type 1 – creeping or prostrate;
- Type 2 – semi-spreading;
- Type 3 – broad spreading, globe, and compact upright;
- Type 4 – cone type (pyramidal);
- Type 5 – broad upright;
- Type 6 – columnar type.

Nursery Stock Selection

For nursery stock less than (<) 4" caliper size, caliper measurement of the trunk shall be taken 6 inches above the ground.

Nursery Stock Selection

For nursery stock greater than (>) 4" caliper size, caliper measurement of the trunk shall be taken 12 inches above the ground.

Nursery Stock Selection

Bid specifications for trees for street plantings should specify the height to which the tree should be free from branching (branching height).

Nursery Stock Selection

- Bare-root - small, easy to plant, light weight, field grown, cheaper
- Balled & burlapped - dug in nursery, lose 95% of roots, cost more, heavier, keep 5% of roots, wrapped in burlap
- Containerized - plastic or natural pot, soil mix, bark, compost, peat, sand

Trees with soil balls greater than 30" in diameter should be burlapped, followed by drum lacing with rope.

Burlap shall be biodegradable and shall completely cover the root ball.

Soil balls less than 18" diameter usually do not have to be reinforced with cord or rope unless soil is sandy and ball is apt to break apart.

Remember to:

Look up,

down

and all around

Maryland Department of Natural Resources-
Forest Service

Urban & Community Forestry Program

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